16. (Twice amended) An apparatus for reproduction of compressed digital images at a plurality of speeds, said apparatus comprising:

a storage device having stored therein compressed program records, each program record containing multiple versions where each version of said multiple versions allows reproduction at a different play speed, and tables of predetermined temporally similar addresses within each version of said each program record for selection between the different play speed records;

transducing means for reproducing images from said compressed program records; and,

control means responsive to user program and play speed selection for selecting one of said program records, and additionally responsive to user determined play speed for reading said tables and generating predetermined addresses within said one program record for transducing one of said multiple versions in correspondence with said user determined play speed.

REMARKS

Claim 16 is amended. Claims 1 - 7 are cancelled without prejudice.

Rejection of Claims 8 -10 under 35 U.S.C. §102(e)

Claims 8 - 10 stand rejected under 35 U.S.C. 102(e) as being anticipated by Lane et al.

In claim 8 applicants recite an apparatus for reproducing video programs which comprises a means for storing a plurality of video program records. Each program record having a set of digitally encoded signal records representative of each program. A means for linking the encoded signal records of each set to one another at predetermined jump points for selecting reproduction from different ones of the set. Each set of digitally encoded signal records has records of differing sizes for reproduction at a plurality of speeds.

Lane et al. teach digital recording of signals having various compressed digital formats. The Examiner asserts that Lane et al., at col. 21, line 34 to col. 22, line 61 discloses,

> "a) means for storing a plurality of program records wherein each program record having a set of digitally encoded signal records representative of each program..."

This assertion is incorrect. Lane et al. disclose a video transport packetizer operable with a prioritizer for identifying specific data on replay. Lane et al. continue describing a packet header and ID data block. Lane et al. also disclose that packetization and prioritization identify information that is important to trick play operation. However, nowhere does Lane et al. disclose or suggest applicants' recited means for storing a plurality of video program records wherein,

> "...each program record having a set of digitally encoded signal records representative of said each program...".

The Examiner continues asserting that Lane et al., at col. 21, line 52 to col. 22, line 5 discloses,

> "...b) means for linking the encoded signal records of each said set to one another at predetermined jump points for selecting reproduction from different ones of said set..."

This assertion is incorrect. Lane et al. describe Fig 8b, a video packet header which contains information about the packet, the packet source a pointer to the next object in the packet. Nowhere, however, does Lane et al. disclose that which the Examiner asserts. At the Examiner's citation Lane et al. make no mention nor suggestion of applicants' recited,

> "...means for linking said encoded signal records of each said set to one another at predetermined jump points for selecting reproduction from different ones of said set...".

Furthermore, since Lane et al. lack applicants' recited set of digitally encoded signal records there can be no requirement to link. In addition Lane et al. is directed to recording and reproduction from a tape medium and shows various recorded track patterns and trick play data placements. The VTR system disclosed by Lane et al. is physically constrained to play or progress along the tape medium in

a linear manner. The disclosed helical scanning system of Lane et al. is incapable of jumping to predetermined points as applicants recite.

Anticipation under 35 U.S.C 102 requires that the reference teach every aspect of the claimed invention either explicitly or implicitly. Any feature not directly taught must be inherently present. Since Lane et al. lack applicants recited set of digitally encoded signal records and fails to disclose applicants means for linking each set at predetermined jump points, applicants' claim 8 is not anticipated nor rendered obvious by the teaching of Lane et al.

Claims 9 and 10 depend from claim 8 and are for the same reasons not anticipated nor rendered obvious. With respect to claim 9 the Examiner asserts that Lane et al., at col. 57, lines 35-48, discloses

> "...wherein the predetermined jump points are grouped specific to transitions between similar temporal program events for reproduction at differing speeds..."

This assertion is accurate because Lane et al. disclose a track lookup table (1610) which contains "entries for each supported mode of trick play operation, i.e. it contains a record of the locations of all possible trick play track segments e.g., sync blocks, contained in a track map or a particular speed and direction of tape operation supported by the VTR playback circuit 1600." Lane et al. fail to mention or disclose jump points and also makes no mention of transitions between similar temporal program events. Furthermore helical track format disclosed by Lane et al., precludes "jumping" since the medium can only be accessed in a linear fashion.

With respect to claim 10, the Examiner asserts that Lane et al., at col. 57, lines 35-48, discloses that,

> "the predetermined jump points represent addresses of digital images within each said set which substantially correspond with one another."

This assertion is without any basis in view of the disclosure of Lane et al., at col. 57, lines 35-48. Since Lane et al fail to teach every aspect of the claimed invention either explicitly or implicitly the anticipation rejection is improper and withdrawal of the rejection of claims 9 and 10 is respectfully requested

Rejection of Claims 16 and 17 under 35 U.S.C. §102(e)

Claims 16 and 17 stand rejected under 35 U.S.C. 102(e) as being anticipated by Abecassis.

In amended claim 16, applicants recite an apparatus for reproduction of compressed digital images at a plurality of speeds. The apparatus comprises a storage device having stored therein compressed program records. Each program record contains multiple versions and each version of the multiple versions allows reproduction at a different play speed. Each program record contains tables of predetermined temporally similar addresses within each version of each program record for selection between the different play speed records. A transducing means reproduces images from the compressed program records. A control means is responsive to user program and play speed selection for selecting one of the program records, and additionally responsive to user determined play speed for reading said tables and generating predetermined addresses within said one program record for transducing one of said multiple versions in correspondence with said user determined play speed.

Explained differently, applicants reproduce stored compressed program records with each program record having multiple copies. Each program record copy allows reproduction at a different play speed. To allow the user to select different play speeds for the program, for example to go forward at seven times speed or reverse at twenty one times speed, applicants provide tables of similar addresses in the other speed program versions to selection there between.

Abecassis teaches a system to enable restricted viewing of a "video" to a number of different viewers. Abecassis teaches an editing system where a single program or "video" is randomly accessed and seamlessly presented to allow the same single program "video" or film to be separately viewed with either a G or R rating code.

The Examiner states, at page 8 line 2 of the action, that Abecassis retrieves non-sequentially stored segments of a video program. Furthermore Abecassis makes no mention nor suggestion of reproducing compressed program records as recited in applicants' claim 16 wherein;

> "...each program record containing multiple versions where each version of said multiple versions allows reproduction at a different play speed,

Abecassis teaches the editing of a single program to achieve different replay versions by means of random access within the single program thus Abecassis has no requirement to store multiple program versions. Furthermore, although Abecassis teaches editing a single program to achieve different replay versions, Abecassis fails to mention or suggest reproduction at different play speeds. In addition Abecassis makes no mention that multiple program versions facilitate reproduction at differing speeds.

Although Abecassis discloses storing the editing requirements necessary to achieve the different replay versions of the single program, Abecassis makes no mention nor suggestion of applicants' multiple versions and tables of predetermined temporally similar addresses within each version, as recited wherein,

> "...each program record containing multiple versions and tables of predetermined temporally similar addresses within each version of said each program record for selection between the different play speed records...".

Abecassis stores replay editing requirements but these are not part of the program record, furthermore the editing information stored by Abecassis fails to anticipate applicants' temporally similar addresses within each program version.

Finally, Abecassis discloses a control means but fails to mention or suggest applicants recited,

> "...play speed selection for selecting one of said program records, and additionally responsive to user determined play speed for reading said tables and generating predetermined addresses within said one program record for transducing one of said multiple versions in correspondence with said user determined play speed. .."

The Examiner asserts, at page 8 line 17, that a consequence of Abecassis's removal of unwanted program content is to provide,

> "...a continuous transparent edited version of any segment, thereby varying the final reproduction speed which varies on the basis of the extent of the editing of the original program. ."

Applicants respectfully suggest that this assertion is without any basis in the teaching of Abecassis. Replay viewing devices, almost without exception ,require that an image (replay program) signal be delivered to the viewing device at a "standardized" rate, for example, in accordance with the NTSC, VGA or ATSC standards. It is believed that the removal of unwanted program content by Abecassis's editing system results in a shorter program duration but without any alteration to the speed of reproduction or program presentation.

Since Abecassis fails to mention or suggest multiple program versions for reproduction at different play speeds, and makes no mention of In addition Abecassis makes no mention of tables of addresses for selection between the different play speed records, applicants' claim 16 is not anticipated nor rendered obvious by the teachings of Abecassis. Withdrawal of the rejection under 35 U.S.C. 102(e) is respectfully requested.

Claim 17 depends from claim 16 and is, for the same reasons, not anticipated nor rendered obvious by the teachings of Abecassis. Withdrawal of the rejection is respectfully requested.

Applicants have made every effort to place claims 8 -10, 16 and 17 in condition for allowance. Applicants respectfully request the withdrawal of the rejection under 35 U.S.C. 102(e) and the allowance of claims 8 -10, 16 and 17.

Respectfully submitted
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June 26, 2001

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

16. (Twice Amended) An apparatus for reproduction of compressed digital images at a plurality of speeds, said apparatus comprising:

a storage device having stored therein compressed program records, each program record containing multiple versions where each version of said multiple versions allows reproduction at a different play speed, and tables of predetermined temporally similar addresses within each version of said each program record for selection between the different play speed[s] records;

transducing means for reproducing images from said compressed program records; and,

control means responsive to user program and play speed selection for selecting one of said program records, and additionally responsive to user determined play speed for reading said tables and generating predetermined addresses within said one program record for transducing one of said multiple versions in correspondence with said user determined play speed.